ALFRED MUDGE & SON, PRINTERS, 24 FRANKLIN ST., BOSTON.

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GENERAL INFORMATION.

TERMS, net cash with order.

FREIGHT AND EXPRESS CHARGES always to be paid by the purchaser.

WE DO NOT guarantee the safe delivery of goods.

OUR RESPONSIBILITY ceases when goods are delivered at Post-Office, Express Offices, or Freight Depots.

MACHINES OR PARTS AND SUNDRIES returned must have the freight or express charges prepaid, with owner's name and address marked distinctly on a tag.

OUR PRICES are fixed, and no discounts are allowed except to regular agents. Parties ordering machines incomplete will only be allowed half price for parts not taken.

IN ORDERING, always send weight of rider, and, if selection of size is to be left with us, send height of rider, and length of leg to bottom of the sole under ball of foot, and length of inside seam of trousers. Also specify how goods are to be shipped.

C. O. D. ORDERS must be accompanied by enough money to pay express charges both ways. In case the goods are not accepted from any fault on our part, the money will be returned.

WE HAVE in our employ one of the first mechanics in England, direct from Rudge & Co.'s factory, and are prepared to repair all machines of our regular line of importations promptly and in the best manner possible. We, however, do not solicit orders for repairs, but can always furnish the different parts of our machines of which we have a full line in stock.

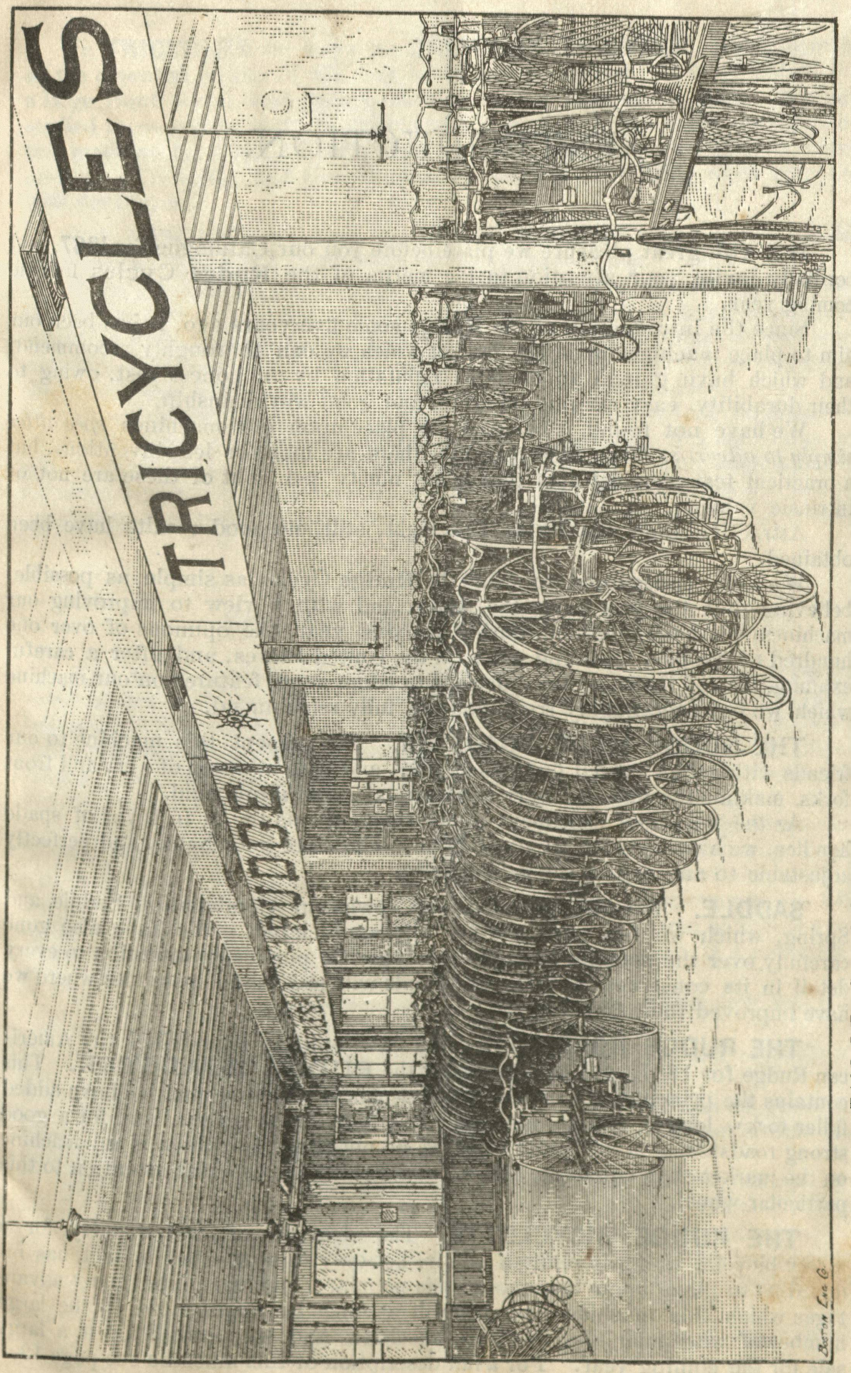
WE DO NOT take second-hand machines in exchange, neither do we sell on the instalment plan. Occasionally, we have a few shop-worn or second-hand machines left with us on sale, for which we would be always glad to quote prices if desired.

AGENCY. WE HAVE AN AGENCY for the sale of our machines and sundries in nearly every city in the country. In each city where such an agency does not exist, we are desirous of establishing one, and terms will be forwarded on application. We are careful not to appoint irresponsible parties, and our customers may, therefore, feel assured that in dealing through one of our agents, their favors will meet with as prompt and careful attention as if sent to us direct.

WE WARRANT all of our Bicycles and Tricycles to be free from imperfections in material or manufacture, and agree to make good, at any time within a year, any defects in them not caused by use, misuse, or neglect. If such are found, all defective parts must be sent to us for examination before any claim is allowed.

ALL CORRESPONDENCE must be addressed direct to the firm at Boston, and not to individuals in our employ.

PARTS. — Price list of parts will be sent on receipt of stamp.



TL 435 .D327 R839 1887

INTRODUCTION.

It is with great pleasure we place before you our Catalogue for **1887**, and cordially invite your attention to the merits of the **Rudge Cycles** for the coming year.

Since the introduction of the **Rudge** some five years ago, it has been our aim to place machines upon the market which we can thoroughly recommend, and which have gained an enviable reputation by an honest test, owing to their durability, easy running qualities, and good workmanship.

We have not found it necessary to place upon our machines *specialties simply to advertise them*, for every year there are more or less inventions, but a practical test demonstrates that about ninety per cent of these are not of intrinsic value.

Attractive they may be at first sight, still, no good results have been obtained.

We have endeavored to make the **Rudge Cycles** as simple as possible, believing that the less parts the better, and with a view to improving our machines, we have obtained, during the past year, the opinions of over one hundred of the best all-round riders in the United States, and after a careful examination, of them we have decided to adopt some features on our machine which we have thoroughly tried, and can fully recommend.

THE RUDGE LIGHT ROADSTER. We present this machine to our friends with all its valued features of 1886, and with addition of very full front forks, making the machine very much stronger and more rigid.

As the universal sentiment of the riders seems to be in favor of spade handles, we have decided to adopt them. These are detachable, and perfectly adjustable to any degree the riders desire.

SADDLE. We also introduce the Townsend Combination Saddle and Spring, which we feel sure will be fully appreciated. We have also gone carefully over the machine at every point, giving particular attention to every detail in its construction, and our friends will see many instances where we have improved their favorite.

THE RUDGE ROADSTER. We have entirely remodelled the American Rudge for 1887, and have named it the **RUDGE ROADSTER.** This contains the principal features of the first-named machine, and we have added fuller forks, longer cranks, and improved it in many points, and for a good strong roadster, at a moderate price, we do not think that there is any machine on the market that equals it, and we would call your especial attention to this particular wheel.

THE RUDGE BICYCLETTE. The demand of this country for a safety bicycle, which is really a safety, not only in name, but in fact, has induced us to place upon the market this popular machine. The many advantages which this machine contains will at once be appreciated by the large number of wheelmen and intended wheelmen, and we predict for it a large sale for the coming year. For a full description of this machine see page 19.

In **TRICYCLES** we have the **CRESCENT TRICYCLE,** which contains all the essential points of the very latest improvements. It is furnished with a large front wheel and bicycle steering, and a long wheel base. We have studied these points very carefully, and feel confident that when the riders see this machine they will be more than pleased. It combines lightness, speed, and ease of running, and the difference in speed is very little when compared with the bicycle.

For **TANDEMS** we have the **RUDGE HUMBER,** and a new tandem called the **CRESCENT TANDEM,** of the Cripper form.

With these seven popular machines, it will be seen at once that we cover the whole ground, and the prestige which these machines have in England, combined with **Rudge & Co.'s** experience and skill in material and workmanship, leave nothing to be desired, and we can with confidence recommend these machines to the notice of our agents and their customers.

In conclusion we would add, that our manager has visited England, and inspected every novelty and improvement in the cycling line of to-day, and the **Rudge Cycles** which we offer to the public have been built under his personal supervision, and we place them on the market knowing that our reputation goes with them, and we feel sure that our efforts will be appreciated.

HINTS TO PURCHASERS.

The usual custom of the inexperienced is to send for a price list from every maker, and then consult with all their friends who are riders, each of whom will stand by the machine he rides, whether it be good, bad, or indifferent. The result of such conflicting information and advice is that, often in despair, machines are offered that have nothing to recommend them except that they are advertised at a low price, or at an absurd light weight.

We are not so presumptuous as to assume that there are no good machines in the market except the RUDGE CYCLES. All we ask, in common fairness, before deciding, is that the special merits and excellences of our machines may be closely compared with those of other makes. Purchasers are often misled by tempting offers of low-priced machines. To yield to this is a mistake; for, like other manufactured articles, wherever there is a reduction in price, a decrease in quality is the usual result.

A machine is supposed to carry you thousands of miles, over rough and smooth roads, at the rate of eight to fifteen miles per hour.

No machine, unless made of the strongest materials, and carefully and skilfully fitted, will stand such a continuous jar and strain.

REMEMBER that it costs less to make a heavy machine of poor metal than a good machine of light steel; therefore weight does not always mean strength, nor lightness weakness.

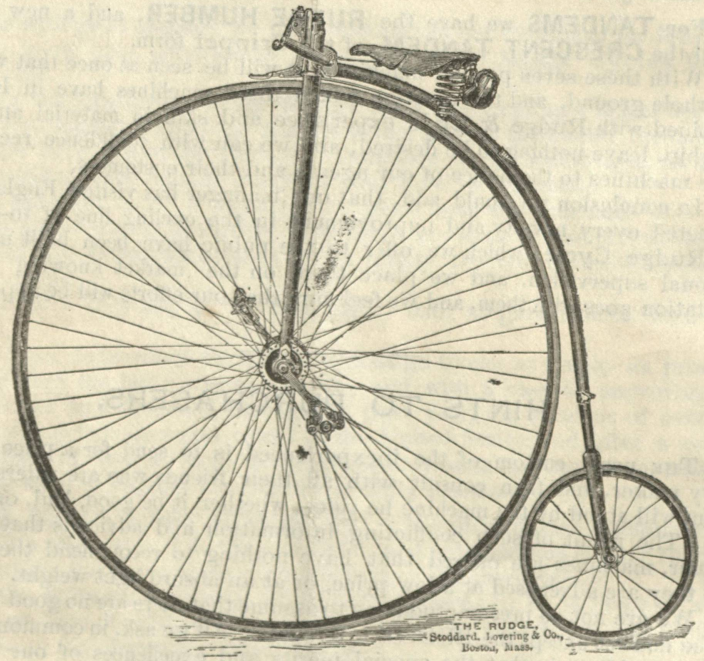
DO NOT buy a large machine if a smaller one will fit you equally as well. If it is a question of choice between a 52 and 54 inch, choose the former.

BEWARE of cheap machines. Your safety depends on your steed.

DEAL ONLY with responsible agents, and do not place implicit confidence in those who offer to guarantee their goods. The reputation of the maker and agent is the best guaranty.

BEWARE of the agent who makes offers to cut prices in order to sell a machine.

THE RUDGE LIGHT ROADSTER.



PRICE, 50-inch, **$132.50.**

Backbone, forks, fellows, and spokes enamelled; the head, handle bar, hubs, cranks, step and pedals heavily nickelled.

The price includes BALL PEDALS (either rat-trap or rubber), Townsend patent saddle, handy tool bag, nickelled wrenches, adjustable step, and adjustable spade handles.

Each rise of two inches in size, $2.50 extra.

Nickelled, except wheels, $12.50.

The **TIRES** are round, seven-eighth inch full to front, and three-quarter inch to back, made of the very best quality red Para rubber. These have been deemed the best sizes for this machine, and are attached to the rim by a cement process, with great care and skill.

These tires have a well-earned reputation for staying in, and can easily be replaced, when necessary, by the rider himself.

The **FELLOES** are of the Clement hollow pattern, consisting of one piece of steel tubing rolled and pressed into the proper shape, and capable of bearing a weight of two hundred pounds, even before a single spoke has been inserted

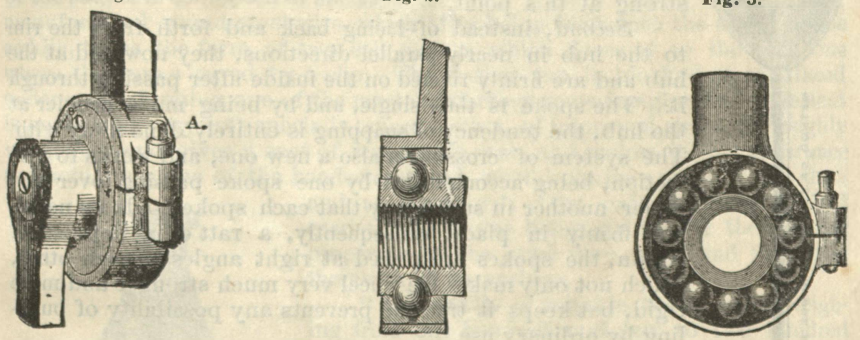
The strength of this felloe will be realized when we state that among the thousands of Rudge Light Roadsters we have sent out, **not one has been returned to us with a broken felloe that can be traced to the fault of the machine.**

The **HEAD** is of the long-centre Andrews pattern, fitted with a dust shield which is entirely noiseless and entirely protects the head from dust. Five years' experience with this head has demonstrated that for durability, rigidity, and simplicity it remains unequalled; and we, therefore, adhere to it, rather than to run the risk of changing simply for the sake of advertising a novelty.

The **BEARINGS.** Two of the most important points in bicycle making are rigidity and minimum friction, and we would call your attention to one of the principal features of the Rudge cycles, which are fitted throughout with **Rudge's unequalled ball bearings.** For simplicity of construction and remarkable ease of running they have gained a world-wide reputation.

As ball-bearings are now of the greatest importance to cycles, we take pleasure in calling your attention to these famous bearings, which were invented by Daniel Rudge some nine years ago, and which have been made to revolve over **six million times** without incurring any perceptible wear or the shaking loose of any of the parts.

Fig. 1. Fig. 2. Fig. 3.



ADJUSTABLE PATENT FRONT BEARINGS.

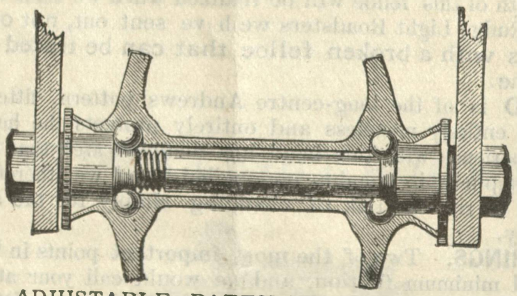
When the bearings require adjusting, unscrew the square-headed pin A that is in the lug of the bearing, as shown in Fig. 1.

This has the effect of loosening the disk, which can then be turned round in the direction the arrow is pointing in Fig. 1, until the bearing is sufficiently tight. Great care must then be taken to screw the square-headed pin A down tightly; otherwise, the disk is liable to shake loose when the machine is ridden.

Figs. 2 and 3 explain the principle of the bearing, in which the manner of adjustment may be readily observed.

Many manufacturers have tried to improve on these famous bearings, but without success, and the Rudge bearings are to-day, as they were eight years ago, without a rival, and so great is their popularity that many of the makers of other machines are forced to use them. To the superiority of the celebrated bearings for racing, coasting, or climbing hills, we refer you to the many thousands of riders of the **Rudge.**

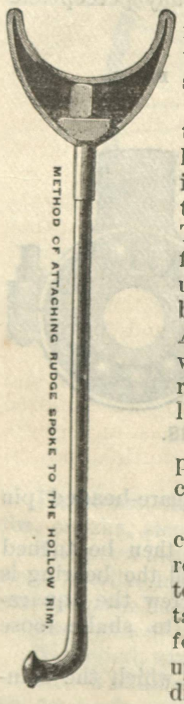
Fig. 4.



ADJUSTABLE PATENT BACK BEARINGS.

The adjustment of the back wheel is quite as easily effected by unfastening the nut on the side where the *milled* washer is, and then turning the washer round with the fingers from left to right until the bearing is tight; the nut should then be firmly secured again.

The **SPOKES** are tangential, and present the following advantages over other of a similar pattern: —



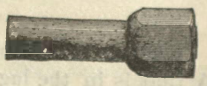
METHOD OF ATTACHING RUDGE SPOKE TO THE HOLLOW RIM.

First, the tendency of the tangential to snap at the rim is obviated by securing them with a concealed lock-nut and washer, making them practically but-ended, and doubly strong at this point.

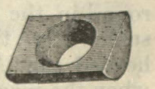
Second, instead of lacing back and forth from the rim to the hub in nearly parallel directions, they now end at the hub and are firmly riveted on the inside after passing through it. The spoke is thus single, and by being made heavier at the hub, the tendency of snapping is entirely done away with. The system of crossing is also a new one, and works to perfection, being accomplished by one spoke passing over and under another in such a way that each spoke holds its neighbor firmly in place, consequently, a rattle is impossible. Again, the spokes are placed at right angles to each other, which not only makes the wheel very much stronger and more rigid, but keeps it true and prevents any possibility of buckling by ordinary use.

The best recommendation for this particular spoke is the universal satisfaction it has given in the last three years.

RUDGE SPOKE PROTECTOR.



Many manufacturers have tried to copy it, with a greater or less number of crossings, and the result has been that the wheel has been either too loose or far too rigid. If the spokes in a tangent wheel are not laced tightly, it will be found that when the rider is on the machine the upper spokes will be very tight, while those directly beneath him, on the under side of the wheel, will be found very loose, making it almost impossible for the wheel to be rigid and to stand the required strain. On the other hand, if the wheel is a complete network of spokes, crossing and recrossing, and all firmly brazed to each other, the wheel is practically solid, and although rigidity is to be desired, there must be sufficient *give* in the machine to be able to stand the wear and tear.

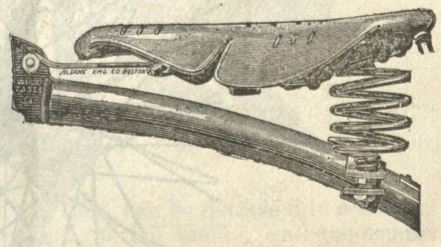


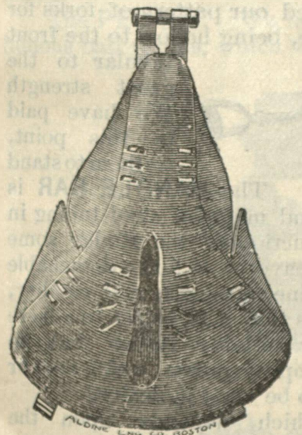
SPOKE WASHER.

With the **Rudge** spoke it will be seen at a glance that it is unequalled for simplicity of construction, rigidity, and ease of replacing in case of breakage.

SADDLES. After trying nearly every saddle upon both the English or American market, we have come to the conclusion that the Townsend Combination Saddle and Spring is far ahead of anything yet introduced, and although several patent hammock saddles have filled the want to a certain extent, we believe that the Townsend combines more valuable features than any saddle extant.

We quote the following description from the leading English cycling paper, which speaks for itself: "One of the most successful efforts in the direction of a perfect saddle and spring has been made by Messrs. Townsend & Co., one of whose combination saddle and springs we have been using constantly for the past six months with entirely satisfactory results. The front part of the spring is similar to the ordinary Rudge spring, having a slot in it of some two inches in length, to allow for adjustment, and running right under the saddle, to the coil springs behind, upon which it tests and slides. The frame of the saddle is composed of specially manufactured round steel wire, which after being bent into the shape on the saddle, takes the form of two coil springs which descend to the backbone where they are secured by a clip. The leather top is blocked on and laced underneath, forming one of the most satisfactory seats imaginable. The seat is made from very soft specially tanned leather, of improved shape, thoroughly ventilated, and gives a seat of remarkable ease, and makes it in appearance and actual use one of the handsomest and most luxurious seats of the day, and as advertised, 'the only universal weight carrier,' this power being gained by the peculiar properties of the steel wire used and formation therewith of its springs.



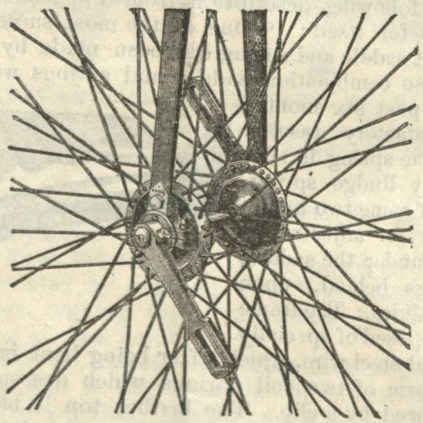


"This saddle is suitable for a person weighing from one hundred and ten to two hundred pounds, as it can be adjusted to almost any weight by moving the saddle back and forth upon the springs. One great advantage of it is a side motion, which entirely prevents every particle of discomfort attendant upon other saddles, which have to be broken in before they are comfortable.

"Wherever Messrs. Townsend & Co.'s invention has been introduced, it has met with universal praise; and although this saddle has only been on the market the last year in the principal cycling centres, among amateurs, professionals, and the trade it has successfully passed through the ordeal, and is now being adopted by many of the leading manufacturers, so that we anticipate next season many inquiries for what we have no hesitation in calling one of the best things on the market."

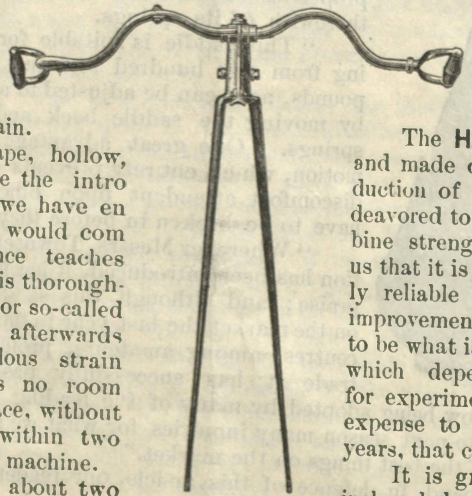
We recommend, in defence of this article, our readers, one and all, to try the saddle and judge for themselves.

The **TREAD.** Owing to the above method of building the wheels, it has been found that they can be built perfectly rigid, and, at the same time, narrower than any other make. The advantages of this will be appreciated by all riders of experience, and particularly racing men, as it causes the power to be applied to the best possible advantage. It is due to the peculiar construction of the wheels that it has gained its present enviable reputation as a hill-climber.



The **HUBS** are of a specially improved pattern, made of the very finest steel, well recessed to admit of the narrow tread, and pierced with holes for the tangential spokes.

The **FORKS.** We have entirely reconstructed our pattern of forks for **1887**, and they are now *very full* and oval in shape, being hollow to the front wheel and semi-tubular to the back, combining great strength and lightness. We have paid special attention to this point, and can *guarantee* them to stand any ordinary strain.

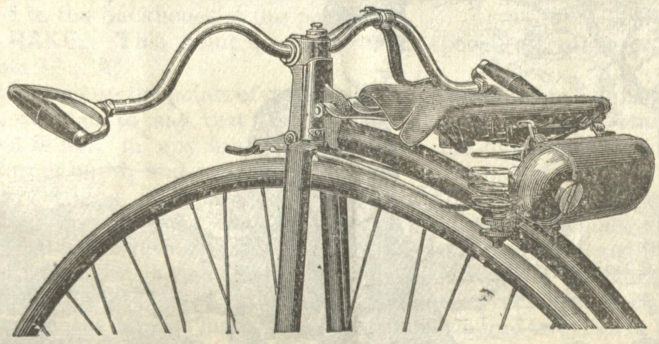


The **HANDLE BAR** is cow-horn in shape, hollow, and made of steel tubing in one piece. Since the introduction of the Rudge some five years ago, we have endeavored to find a detachable handle-bar which would combine strength and rigidity, but our experience teaches us that it is better to adhere to what we know is thoroughly reliable rather than to make alterations or so-called improvements, which may or may not be found afterwards to be what is desired.

The tremendous strain which depends upon the handle-bar leaves no room for experiments, and we are prepared to replace, without expense to the riders, any bar that breaks within two years, that can be shown to be the fault of the machine.

It is gracefully curved down at each end about two inches below the head, and is fitted at each end with spade handles.

SPADE HANDLES. The demand for this style of handle last year, and the ease with which hills could be climbed, demonstrated that it was coming into popular use, and we have decided to attach them to all our **Rudge Light Roadsters.** Although we have no detachable handle bar, we have attached

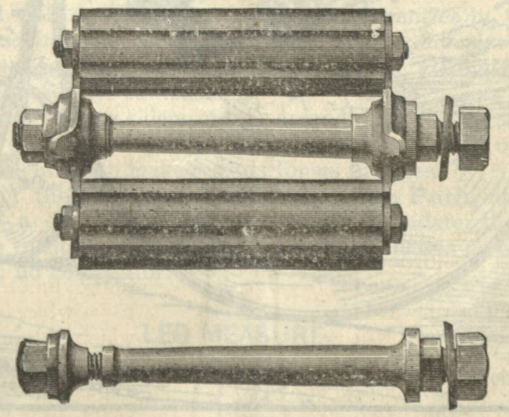


these handles in such a way to the bar that they can be detached in a few seconds. The hollow handle bar is threaded on the inside, and the handles screwed in, and are secured by a lock-nut, which holds them in any position that the riders desire.

The **BRAKE** is of the spoon pattern, controlled by a powerful lever of good length, and fitted with a concealed brake spring under the head, which entirely prevents any rattle.

The **CRANKS** are of the latest pattern, detachable, and allow the power to be placed at a throw varying from four and three quarters to full six inches.

The **PEDALS.** We take pleasure in calling your attention to Rudge's famous ball pedals, which are furnished with each **Rudge Light Roadster,**



either rat-trap or rubber. No part of the machine requires more care than the pedals, and we think, without doubt, that the riders will acknowledge that the **Rudge** pin is the strongest extant. Its peculiar construction allows the

THE KING OF THE ROAD.

metal to be placed to the best possible advantage, and it combines great strength with lightness. It is a significant fact that, almost without exception, all records made in **1886**, by any make of bicycles, the riders used the Rudge ball pedals. *Comment is unnecessary.* The **STEP** is of the very latest safety pattern, adjustable and especially designed for this machine. No holes are drilled in the backbones at this point.

The **RAKE.** This point has received our special attention for **1887**, and varies from $1\frac{3}{4}$ x $2\frac{3}{4}$.

In summing up the points of the superiority of the **Rudge Light Roadster** for **1887**, we wish to say that this wheel combines lightness, strength, and speed; but is not, in any sense of the word, the light roadster which some manufacturers build, and are only to be used on smooth roads.

We are willing to guarantee this machine to any person weighing under two hundred pounds, and challenge competition with machines ten pounds heavier. Although its name is the **Rudge Light Roadster,** and it *is* lighter than most roadsters, it is so named to distinguish it from the Rudge Roadster, with the direct spokes. It is built from the very best stock to be obtained, and by the largest manufacturers of bicycles and tricycles in the world, namely, **D. RUDGE & CO., Coventry, England**

The weight of a 50-inch **Rudge Light Roadster,** complete with saddle, stool, bag, and tools, is **thirty-six and a half pounds.**

The policy of Messrs. **RUDGE & CO.** has always been to give the best value for the money, and, although in some cases their machines have been somewhat higher in price than others, they have invariably found that it paid to build the best, and as the riders fully realize that a cheap machine is dear at any price. they have no hesitation in paying a trifle more, and getting the best article that can be made.

LIGHTNESS, SPEED, AND STRENGTH.

We point with pride to the record of the **Rudge** since we have placed it upon the **American Market five** years ago.

Its principal points of construction remain practically the same, and its large and increasing sale each year proves most conclusively that its sale has not been dependent upon novelties which appear attractive at first sight, and are principally used for advertising.

The long list of famous riders of this splendid bicycle are its best recommendations of its worth, and we have not felt the necessity of placing paid riders upon our machines to make records for us in races.

The success of the **Rudge** on the **Road,** on the **Path,** and on the **Hill** speaks for itself, and we firmly believe that for a roadster that contains the essential qualities of lightness, strength, and speed, it has no equal, and, we might almost say, no competitor.

LEG MEASURE.

31-inch leg for 48-inch wheel.				34½-inch leg for 55-inch wheel.			
32	"	50	"	35	"	56	"
32½	"	51	"	35½	"	57	"
33	"	52	"	36	"	58	"
33½	"	53	"	37	"	60	"
34	"	54	"				

SUMMARY OF POINTS IN THE RUDGE LIGHT ROADSTER FOR 1887.

BEARINGS. Rudge's unequalled ball bearings to both wheels and pedals.
SADDLES. Townsend patent.
STEERING HEAD. Long centre; Andrews patent.
HANDLE BARS. Hollow weldless steel tubing, cow-horn shape.
SPOKES. Single tangent, riveted at the hub, and attached at the rim with long tube nipples.
HANDLES. Spade handles; detachable and perfectly adjustable.
RIMS. Clement hollow; made in one piece without brazing.
DUST SHIELD. Perfectly tight, with means for oiling head.
FORKS AND BACKBONE TUBING. Very finest cold-drawn weldless steel.
STEP. Latest pattern adjustable safety.
CRANKS. Long, 6-inch throw.
TIRES. Finest Para rubber; especially manufactured for American roads.
PEDALS. Rudge's ball tapered pin; warranted not to break. Corrugated rubbers.
FINISH. Two styles. Standard, all nickel with the exception of the backbone, forks, spokes, and rim. Extra, all nickelled but rims and spokes.

PRICES OF RUDGE LIGHT ROADSTER.

48	-	in.	nickelled	on	copper,	except	forks,	backbone,	rims,	and spokes,	$130 00
50	"	"	"	"	"	"	"	"	"		132 50
51	"	"	"	"	"	"	"	"	"		133 75
52	"	"	"	"	"	"	"	"	"		135 00
53	"	"	"	"	"	"	"	"	"		136 25
54	"	"	"	"	"	"	"	"	"		137 50
55	"	"	"	"	"	"	"	"	"		138 75
56	"	"	"	"	"	"	"	"	"		140 00
57	"	"	"	"	"	"	"	"	"		141 25
58	"	"	"	"	"	"	"	"	"		142 50
60	"	"	"	"	"	"	"	"	"		145 00

Extra finish, all nickel except rims and spokes, $12.50.

The above prices are for the machine complete, crated and delivered **F. O. B.** at **BOSTON, MASS.**, with tools, tool bag, pedals, and saddles complete. Other sundries to be charged extra as per catalogue list.

SPECIAL NOTICE.

We have a few shop-worn RUDGE LIGHT ROADSTERS in stock, on which we would quote special prices if desired. Apply at once.

☞ **Our adjustable Spade Handles can be fitted to all RUDGES. Price, $5.00.**

TESTIMONIALS.

We select at random a few of the many hundreds we have received: —

I am more and more pleased with my Rudge Light Roadster; the more I ride it, I am convinced that there is not a machine on the market that runs more easily. I put my wheel to a severe test not long ago, by taking a quick run over a rocky road, and not a nut or bolt was loosened, so far as I know.
Yours truly, JOSEPH R. WILSON, JR., CLARKSVILLE, TENN.

I am much pleased with my 53-inch Rudge Light Roadster. Its faults are few, and its virtues many; among the latter are great rigidity, ease of propulsion, and quickness to respond to pressure on the pedals.
I have taken pleasure in recommending it to many wheelmen this year.
Yours very truly, HENRY W. WILLIAMS,
BOSTON, MASS.

I have ridden a Rudge Light Roadster for the past two years, and have found it is a serviceable, easy-running machine; and to any one intending to get a machine, I would say, by all means, get the Rudge.
Respectfully yours, J. E. COREY,
CAPT. CHARLESTOWN BI. CLUB, BOSTON, MASS.

I ride a Rudge Light Roadster, and am *proud* of the machine. There is not any other make of machine in the market that I would exchange it for.
Very truly yours, WM. ALLEN, NEW YORK.

I wish to express my delight with the Rudge Light Roadster you sent me. I have given it a test as thorough as possible, in a few days' running, and am very greatly pleased with it. Very truly yours, I. ELTING.
SAUGERTIES, ULSTER COUNTY, N. Y.

The Rudge Light Roadster received day before yesterday. It is the acme of grace and elegance. Very truly, B. B. AYER,
L. A. W. TOURMASTER, CHICAGO, ILL.

It is with pleasure that I testify to the excellent qualities of the Rudge Light Roadster as evidenced in the tour from New Orleans to Boston.
My wheel (a 53-inch) standing the unprecedented hard usage without loosening a nut or starting a spoke.
Having had several years' experience with quite a variety of wheels, I can confidently recommend the Rudge as the perfection of cycle manufacture.
By next May I hope to complete 10,000 miles on my old 53: I have now over 7,250, all without a break. Yours truly, C. M. FAIRCHILD.
NEW ORLEANS.

I received my 58-inch Rudge Light Roadster last Thursday. It is the finest machine I ever saw. It runs so easy I don't know I am pedalling half the time. Yours respectfully, W. W. BERRY,
CAPT. P. B. CLUB, PITTSTON, PA.

I wish to say a word in praise of my 48-inch Rudge Light Roadster which I purchased while in Boston, during the L. A. W. Meet. I have pedalled it over some of Maine's roughest roads, and it stands the strain equal to the so-called full roadsters (weighing eight pounds more) I have ridden before.

and I think better. It is (without exception) *the best hill climber* I have yet owned. These are no jumped-at conclusions, but the results of thorough tests. I say that it is all humbug for an experienced wheelman to handicap himself with six or eight pounds of superfluous metal, and I think I may safely say that although riding a small machine, there is no harder rider in Central Maine than myself.

The spade handles must be tried to be appreciated. I would n't have any others. Truly, GEORGE EDWARD DUNTON, AUGUSTA, ME.

I received my Rudge Light Roadster; everything satisfactory; very much pleased. I think it is, without doubt, the finest machine I was ever on.

Yours, W. M. WOLFE, HAGERSTOWN, MD.

The Rudge Light Roadster bicycle received the 25th. It is a model, and perfect in every respect, attracting unlimited attention.

Respectfully, CALDER BROTHERS, TERRE HAUTE, IND.

I received my 54-inch Rudge Light Roadster some time ago. After giving it a thorough trial, I find it even better than I had expected.

Very truly yours, HARRY B. HAULIER,
TOWANDA, BRAD. COUNTY, PA.

The Rudge far surpassed my expectations for easy running and strength.

Very truly yours, A. A. WHEAT, WHEELING, W. VA.

Two weeks ago I took a trip to Detriot, Mich., and took my Rudge Light Roadster and gave it a thorough trial, as the pavements are very rough and a good many bad holes. I went with a gentleman who rode a 56-inch wheel of another make, and he said "that my machine would not stand the strain"; but when we arrived home, he had several spokes to tighten, while my machine was as tight as when we started. I am now satisfied that the Rudge Light Roadster can stand as much of a strain as any machine, and has the great advantage of being very light. I would not exchange my machine for any in the market. Yours respectfully, HOWARD G. RIDGELEY,
SPRINGFIELD, ILL.

I think the Rudge Light Roadster is the easiest running and best wheel in town. Several of the riders have tried it, and say it runs easier than their machines. I take solid comfort riding it. Handles and bars are just correct.

Yours, DAVOL,
PRES. OF THE WARREN BI. CLUB, WARREN, R. I.

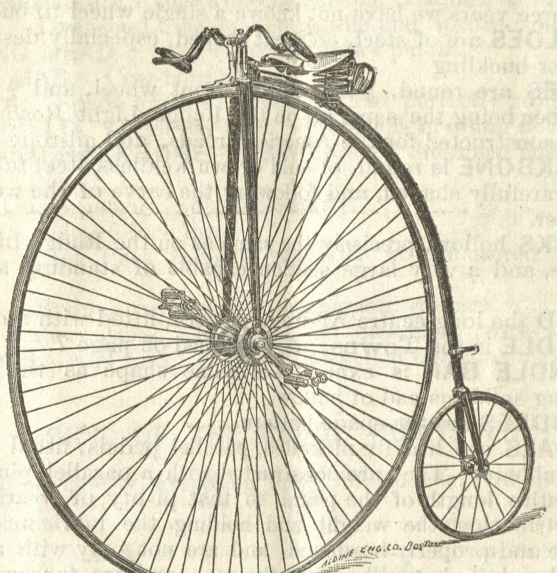
I feel it my duty to all bicycle riders who think of getting a new mount, and also future riders, to let them know what my opinion of your wheel is.

I am one of the three who rode from New Orleans to Boston in thirty days; the wheel I used was the Rudge Light Roadster; and I will warrant no light roadster of any make was ever put to a severer test and stood it as well. Its condition upon reaching my destination proved surprisingly good. Excepting a few spokes which became loose, through much bumping on cross ties of railroads, over which I walked, for a distance of about three hundred miles, no damage was sustained. My advice now will be to all my friends, who contemplate wheels, that the Rudge Light Roadster is the best.

Now, having given vent to my enthusiasm over your wheel, I remain,

Yours truly, HARRY W. FAIRFAX,
NEW ORLEANS TO BOSTON TOURIST, NEW ORLEANS.

THE RUDGE ROADSTER.



PRICE, 50-inch, **$105.**

FINISH.

Backbone, forks, fel'oes, and spokes are finished in Harrington's enamel; all other parts, including pedals and tools, are heavily nickelled. Each rise of two inches in size will be $2.50 extra. This includes spade handles and Townsend's Combination Spring and Saddle.

Extras — Nickelled, except wheels, $12.50 extra. Ball Pedals nickelled, $5.00 extra. Handy Tool Bag, $1.00.

The great popularity attained by the **American Rudge** in the last three years, and the large number we have sold, convinces us that this machine fills a want long felt by a large class of American riders, viz.: **A first-class, thoroughly reliable, easy running, and carefully built all-round roadster at a low price.** As a number of other machines were using the word "**American,**" and as we had improved many points on this machine, at the suggestion of a number of riders, we have decided to call it the "Rudge Roadster," so that it will not be confused with other cheaper bicycles bearing a similar name.

SPECIFICATIONS.

BEARINGS. Rudge's unequalled ball to both wheels, precisely like those on the Rudge Light Roadster (see page 5).

The **HUBS** are all nickelled gun metal, well recessed, to admit of as narrow a tread as possible.

The **SPOKES** are direct, eighty to the front wheel, and twenty to the rear. The great number of these give the wheel immense strength, and during the last three years we have not known a single wheel to buckle.

The **FELLOES** are of steel, crescent shaped, especially designed to resist lateral strain or buckling.

The **TIRES** are round, $\frac{7}{8}$ inch full to front wheel, and $\frac{3}{4}$ to rear. The quality of rubber being the same as on the Rudge Light Roadster, and they are especially constructed for the American roads, and all-round touring.

The **BACKBONE** is round, of cold drawn weldless steel tubing $1\frac{1}{8}$ inches in diameter, carefully shaped, and following the curve of the wheel in a very graceful manner.

The **FORKS** hollow, precisely the same as on the Rudge Light Roadster. Oval in shape, and a very large section capable of standing any reasonable strength.

The **HEAD** the long centre Andrews pattern, fitted with a dust shield.

The **SADDLE** is the **Townsend**, described on page 7.

The **HANDLE BAR** is exactly the same shape as the Rudge Light Roadster, being solid instead of hollow.

The **HANDLES** are the spade pattern.

The **PEDALS** are heavily nickelled, parallel pedals, fitted with Hancock non-slipping rubbers. They are constructed with a parallel pin running and bearing the entire length of the pedal, so that plenty of wearing surface is given for distributing the weight and holding the lubricant. These are perfectly made and properly hardened, and are not only with about as little friction as ball pedals, but will outlast the cone, and are far superior to them.

In summing up the features of the **Rudge Roadster** we wish to say that the quality of material used in its manufacture is precisely as in the Rudge Light Roadster; its only points of difference being: —

The **WHEELS**, where we have gun metal, direct spokes, and crescent felloes, instead of steel hubs, tangential spokes, and hollow felloes.

The **HANDLE BAR** being curved solid, instead of hollow.

The **PEDALS** being parallel instead of ball.

Having our own house in **Bradford, England**, it brings us into direct communication with Messrs. **RUDGE & CO.**, we are enabled, by placing large order, to handle this wheel on a very small margin, and it is especially intended to reach that large number of wheelmen who want a first-class article, but who cannot pay a high price.

In fact, many of our customers have written unsolicited testimonials, saying that they preferred the **AMERICAN RUDGE** to other wheels costing from $20.00 to $25.00 more, and it will be very difficult for any one to show us a machine equal to it at $15.00 above our list.

Before buying a second-hand machine, consider whether it is not better to add a few more dollars and order a new **RUDGE ROADSTER.**

You will then have a machine that you will be proud to own, and that you can dispose of at any time, at a much smaller shrinkage than if you had bought a second-hand wheel. Very few second-hand machines are absolutely sound; they usually have something "out" about them.

LEG MEASURE.

The leg measure of the Rudge Roadster is the same as the **Rudge Light Roadster.** (See page 11.)

SUMMARY OF THE POINTS OF THE RUDGE ROADSTER.

The **BEARINGS** are Rudge's unequalled ball bearings to both wheels.
SADDLE. Townsend Combination Saddle and Spring. (See page 7.)
STEERING HEAD. Long centre Andrews patent.
HANDLE BAR. Cow-horn shape.
HANDLES. Spade handles, detachable and perfectly adjustable.
DUST SHIELD. Perfectly tight, with means of oiling head.
FORKS AND BACKBONE TUBING are of the finest cold-drawn weldless steel.
STEP. Latest pattern, adjustable safety.
CRANKS. Long 6-inch throw.
TIRES. Finest Para rubber, especially manufactured for American roads.
PEDALS. Rudge's parallel, with corrugated rubbers.
FINISH. Two styles: Standard, all nickelled, with the exception of backbone, forks, and rims; Extra, all nickelled but rims and spokes.

PRICE OF THE RUDGE ROADSTER.

46-in.	nickelled	on	copper,	excepting	forks,	backbones,	and spokes,	$100.00.
48-in.	"	"	"	"	"	"	"	102.50.
50-in.	"	"	"	"	"	"	"	105.00.
52-in.	"	"	"	"	"	"	"	107.50.
54-in.	"	"	"	"	"	"	"	110.00.
56-in.	"	"	"	"	"	"	"	112.50.
58-in.	"	"	"	"	"	"	"	115.00.
60-in.	"	"	"	"	"	"	"	117.50.

EXTRA finish, all nickelled, except rims and spokes, $12.50 extra.

☞ **Be sure and see our shop-worn list. We can sell you a machine at any price.**

TESTIMONIALS.

I purchased the first American Rudge that came to Woodstock. I have ridden this machine over very rough roads, and have not taken a header or paid out one cent for repairs. I can safely recommend it as a roadster.

Yours truly, ARCHIE McKENZIE,
WOODSTOCK, VT.

The 50-inch American Rudge I ordered from you last July came to hand in good time, and in fine condition. I must say "It is a thing of beauty and a joy forever." I have ridden it several hundred miles, and over some pretty rough roads, and think that there is no machine made that can go ahead of it in hill climbing or light running. Yours, etc., P. M. RUSSELL,
KINGSTON, ROSS COUNTY, O.

I have ridden my fifty-four (54-inch) American Rudge two seasons from my home at Manchester to my work in Hartford, a distance of ten miles, and my record is forty-six minutes, which is eight minutes quicker than any other machine I ever rode I think it is owing to the closeness of build and narrowness of tread. I can put it through sand that I always had to dismount at with other machines. Have rode it over three thousand miles without any part breaking or shaking loose. I cannot praise it enough, for it is certainly the best looking and easiest running machine on the market. You are at liberty to publish this if you see fit. I remain,

Yours respectfully, OLIVER RICHMAN,
NORTH MANCHESTER, CT.

The 52-inch American Rudge ordered of you arrived this morning, and is the admiration of every one that has examined it.

Yours respectfully, J. H. McCUNE,
BRADDOCK, PA.

The American Rudge is a considerable better machine than we dared to expect at the price, and we fail to see why it is not fully equal to any full roadster on the market, sold for $15.00 to $20.00 more than this machine.

Respectfully yours, KNAPP & VAN HORN,
DENVER, COL.

I purchased an American Rudge of you a few days ago through your agent at Westerly, R. I., Mr. Cross. The wheel is all I could ask in every way.

Yours very truly, W. A. CLARK,
NORTH STONINGTON, CONN.

I received the American Rudge Saturday, and I am very much pleased with it in every particular. Respectfully, W. B. SAYLOR,
BORDENTOWN, N. J.

I am very much pleased with the American Rudge, and would highly recommend it to any one wanting a first-class wheel.

Yours respectfully, L. C. UNDERHILL,
LOCUST VALLEY, L. I., N. Y.

The 48-inch American Rudge received. This wheel is far superior to what we had expected, and will, no doubt, be the means of increasing the sales of this class of machines.

Yours very respectfully, CALDER BROS.
TERRE HAUTE, IND.

In July, 1885, I purchased of you a 52-inch American Rudge. The balance of that season I rode nearly 2,500 miles. This season the machine has been ridden 4,300 miles, making a total of 6,800. During that time I have not expended one dollar for repairs. To-day the machine is in excellent condition and will run as easy as many new machines.

Yours very truly, HERBERT A. FULLER,
BRIGHTON.

Fifty-four American Rudge received, all O. K. It is a beauty. In my experience (of six years) the American Rudge is the *most reliable* wheel on the market to-day. It gives splendid satisfaction.

Very truly yours, J. H. CUNNINGHAM,
WESTMINISTER, MD.

The American Rudge is meeting with a great deal of favor here, and the looks and price of the machine sell it, without our saying a word in its favor.

Respectfully yours, DENVER WHEEL COMPANY,
DENVER, COL.

Please send me a pair of pedals for my American Rudge, bought of you July 17, 1885 Machine is giving entire satisfaction as recommended by you. Have ridden it constantly, and should think about 5,360 miles. It is on the go all the time, and will ride it this day about thirty miles. You know I deliver all my telegrams by wheel now. Would recommend the Rudge to any who are thinking of purchasing a wheel. Don't cost much to keep this kind of a horse, only $3.70 for last year; cheap grain.

Respectfully, GIRALD STACEY.
MARBLEHEAD, MASS.

The 52-inch American Rudges came yesterday. Mine is a beauty. I put it together at once, and have rode it morning, noon, and night, when people are going to and from their places of business. It attracts great attention, and I hear from everybody most enthusiastic praises.

Yours very truly. C. P. WILCOMB,
LAKE VILLAGE, N. H.

The American Rudge arrived in good order. It is certainly a beauty, and my customer is thoroughly pleased with it.

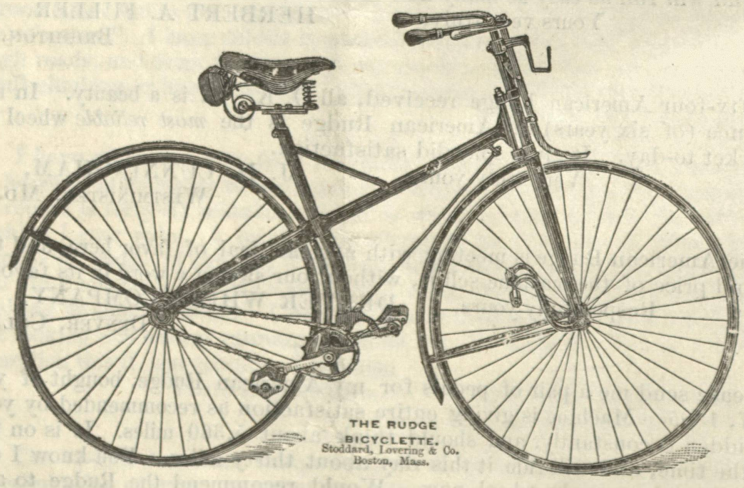
Yours respectfully, L. L. PEDDINGHAUS,
MARIETTA, OHIO.

The 50-inch American Rudge came to hand all O. K.; and it is a daisy; every one admires it, and I will have no trouble in disposing of it.

Yours very truly, HARRY L. GIBSON,
COLUMBUS, S. C.

THE RUDGE BICYCLETTE.

(Patented 1879)



PRICE (ENAMELLED AND NICKELLED), **$140.**

The Fastest and Easiest Running Safety Machine on the Market. Finished in Harrington Enamel. Bright parts nickelled.

We wish to say a few words concerning this already celebrated machine before describing its specifications.

We believe it to be conceded, both in England and America, that Rudge & Co. have been the most successful in introducing to the cyclist novelties which have resulted in marked improvements; and while it has required some little time for the public to appreciate this fact, the results plainly show that their efforts have been successful.

The **RUDGE BICYCLETTE** was patented by **RUDGE & CO.** in **1879**, but their time was so taken up in the manufacture of other machines that they could not give it the attention which it required; but the recent enlargement of their works and machinery has enabled them to perfect it, and it is now introduced with the greatest confidence as a **SAFETY** bicycle, which will, we are confident, be pronounced as one of the most comfortable, safest, and tempting to ride amongst steel steeds. To bicyclists who love bicycling and enjoy something easy in every respect, but feel some slight objection to the risks accompanying high machines, we can with confidence recommend this one with the belief that the result will be very satisfactory.

SPECIFICATIONS.

The **WHEELS** are thirty inches in size.

The **TIRES** are seven eighths inch, and made of the very finest red Para rubber.

The **SPOKES** are of the direct pattern, forty being fitted to each wheel.

The **HUBS** are of solid steel, three inches in width, from flange to flange, and five inches between the forks.

The **BEARINGS** are Rudge's unequalled ball bearings to both wheels, as described on page 5.

The **FRONT AND REAR FORKS** are of the Rudge Light Roadster pattern, very full in shape, and hollow in both wheels, giving to them great strength and rigidity.

The **BACKBONE** is cold-drawn, weldless, steel tubing, one and three quarters inches in diameter. Special attention has been paid to this, as the whole weight comes principally upon this part of the framework.

The **HANDLE BAR** is hollow and of the same gauge as in the Rudge Light Roadster, and is curved in such a manner that the rider is in exactly in the same position on the Bicyclette as he is on the ordinary bicycle.

The **HANDLES** are horn of the largest size.

The **CRANKS** vary from four and three quarters inches to full six inches.

The **SEAT ROD** is hollow, adjustable, and suitable for a rider, varying from 48 in. to 58 in.

The **SPRING.** Special attention has been paid to this point in order to make the machine as comfortable as possible, and we have succeeded in placing a spring on this machine which, we think, will obviate all jar or vibration. The spring can be had in different weights to suit the individual rider.

The **SADDLE** is Brooks' Long Distance, triple tension, which has a motion both forward and back, and from side to side.

The **STEERING.** The great fault of most safety machines of this type lies in the fact that it requires great care in steering. We have given special attention to this point, and have attached the neck to the steering head with a hinge joint, which is perfectly adjustable, as in the ordinary head; and after a little practice the rider can ride the **Rudge Bicyclette** without using his hands, which, we believe, is about the only machine on which this can be accomplished.

MUD GUARDS are fitted to both wheels, being riveted to the framework thus preventing any disagreeable rattle, and can easily be detached if desired.

The **BRAKE** is of the spoon pattern, controlled by a powerful lever, which closely follows the handle bar and which will bring the machine to a stand-still, when going at full speed, in its own length.

The peculiar construction of the **Rudge Bicyclette** gives it numerous advantages, without in the least detracting from bicycle action in propulsion, guiding, and balance. It is safe in every respect, a header being impossible, — the seat of the rider being so low he feels as secure as when on his feet; in fact, his feet are only a few inches from the ground, so that if it were possible to fall, no injury would arise. The wheels are of equal size, the hind wheel being the driver by means of an endless chain, communicating from the hub to the pedals, which are situated between the two wheels. The front wheel is the steerer, so that the power required to propel

RUDGE BICYCLETTE (See page 20.)

the machine does not affect the steering, as in the ordinary bicycle. On this account, and the proximity of the rider to the ground, a learner can make himself master of the art of riding in a much shorter time, and with considerable less danger than upon the ordinary bicycle.

The seat and handles can be adjusted so that the machine can be altered in a few moments to suit the length of leg or arm of the rider. The weight is a little more than the ordinary bicycle, on account of its great number of parts.

As a runner on level ground its speed fully equals the ordinary bicycle; and as a hill climber it easily excels any type of bicycle, as this fact has been proved time and again.

As a machine for road use, combined with speed, we point to the performance of Mr. G. P. Mills, who recently accomplished 294 1-2 miles in twenty-four hours, on this type of machine. This was his first attempt, but before the close of the year 1887, we predict that all road records will be held on this pattern safety.

Regarding the advantages of this machine, we clipped the following note from the **BICYCLING WORLD**, under date of Nov. 19, 1886:

"We have received so many questions concerning this type of **SAFETY**, that we have decided to ask our prize hunters, to briefly express their opinion about this class of machines, and as nearly every contributor has sent us his opinion, we have gone carefully through each paper, and have selected what appeared to us after a protracted trial of this **SAFETY**, to be the best answers.

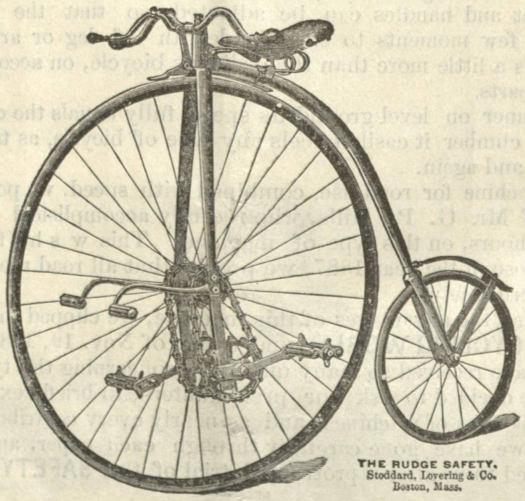
"ADVANTAGES.

"1. *Perfect immunity from headers.*
"2. *Very great brake power.*
"3. *Easy mounting and dismounting.*
"4. *Great power up hill.*
"5. *On account of its dwarf form, it does not offer as great a resistance to the head winds as the ordinary bicycle.*
"6. *Less vibration and bumping.*
"7. *Ability to ride where ordinary or tricycle could not venture.*
"8. *No skidding when driving up hill.*
"9. *Maximum of speed with minimum of exertion.*
"10. *Comfortable foot rests.*
"11. *Less splashing from mud and wet.*
"12. *Saddle and handles can be raised at will.*"

SPECIAL NOTICE.

The Rudge Bicyclette is the original bicycle of this type. Be sure and see it before purchasing

THE RUDGE SAFETY.



PRICE, enamelled and nickelled (all sizes), **$135.00.**

This includes HOLLOW RIMS, BALL PEDALS, and CRADLE SPRING.

A 36-inch Rudge Safety can be used by a rider of a 50-inch to 53-inch Bicycle.
A 38-inch " " " " " 53-inch " 56-inch "
A 40-inch " " " " " 57-inch " 60-inch "
Our standard patterns are geared, a 36-inch machine to 52 inch.
" " " " " 38 " " 54 "
" " " " " 40 " " 56 "

The Rudge Safety, which we introduced last year, has met with such success, that we present it to your notice for 1887, firmly convinced that for safety, strength, easy running, it has no superior.

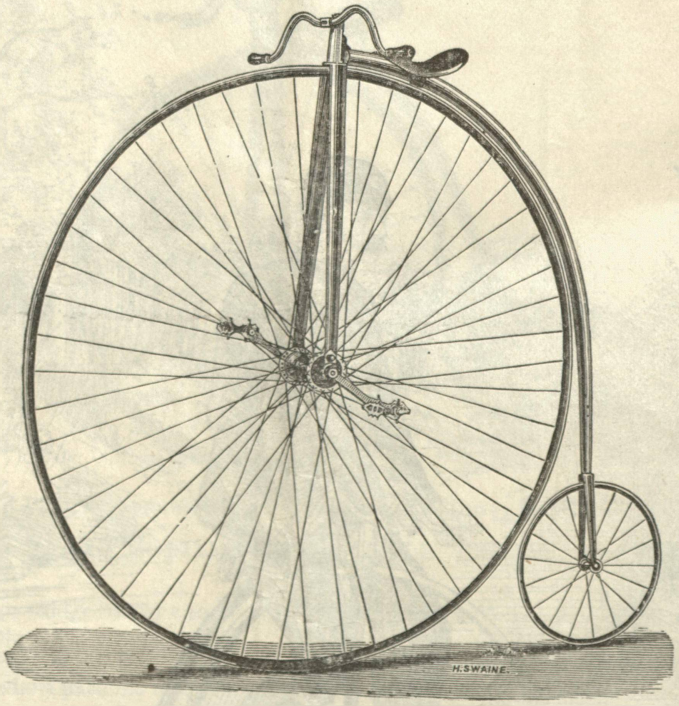
We have had this machine built especially for American roads, and our readers will find that the RUDGE SAFETY is, as its name implies, a bicycle combining the SAFETY OF A TRICYCLE with the SPEED and EASE OF A BICYCLE.

In fact, it is a miniature RUDGE with a hollow square bar extending from each side of the driving wheel, down in a direct line to the front fork, eight inches; to the lower end of these bars is attached a ball bearing, through which passes a short axle; on the end nearest the driving wheel is keyed a gear wheel having fifteen teeth, and on the other end is a crank having from five to six and one half inch throw.

The principal improvements for 1887 are the improved method of attaching the front forks by two bolts to the lower extension fork and the new lower double ball bearing, which does away with all side shake.

RUDGE SAFETY. (See page 24.)

THE RUDGE RACER.



PRICE, 50-inch, enamelled and nickelled, **$135.00.**

Extras same as Rudge Light Roadster.
The weight of a 54-inch Rudge Racer, ready to ride, is 23 pounds.
Fitted with spade handles if desired.

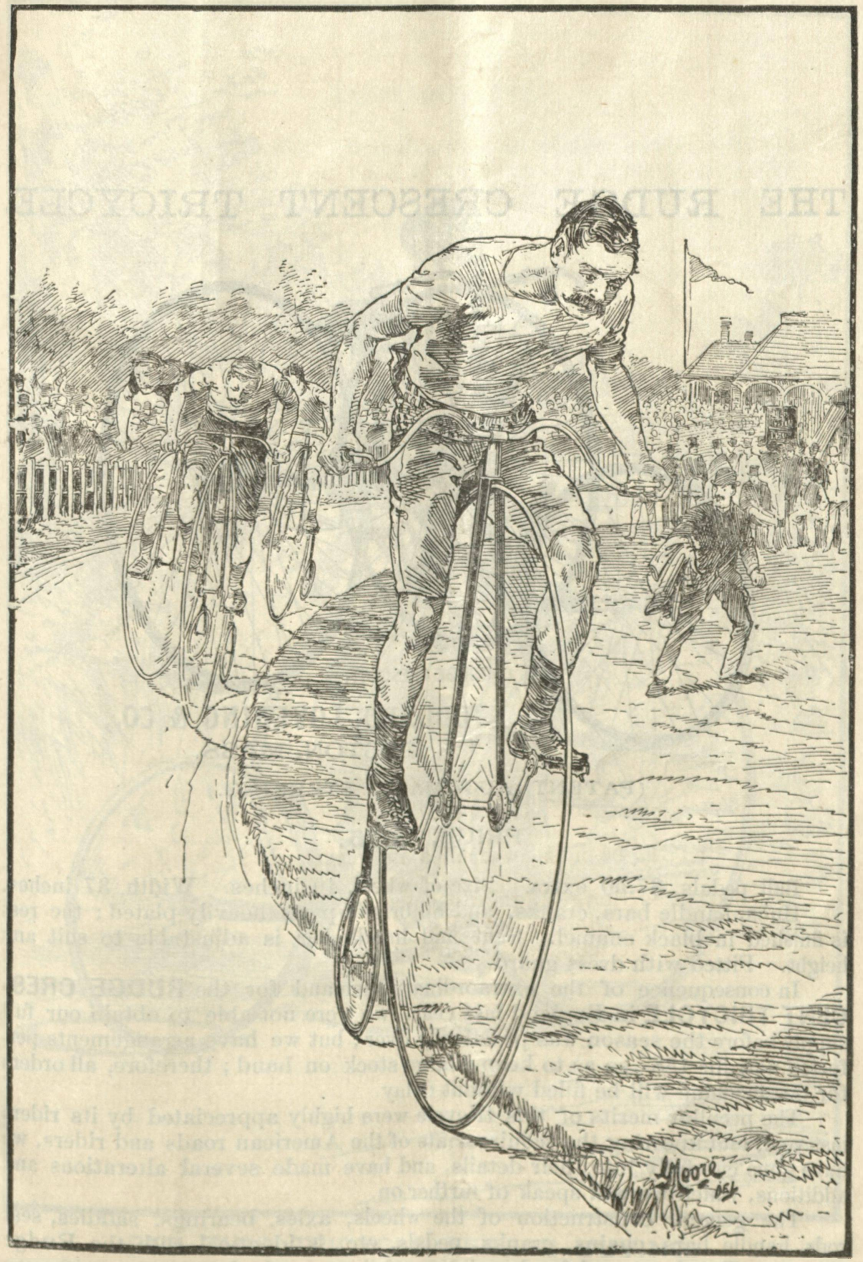
SPECIAL NOTICE.

The **RUDGE RACER** is so well and favorably known among both **ENGLISH AND AMERICAN** riders and racing men that we need not dwell to any great length on its merits. It is sufficient to say that it unquestionably holds the premier position, not only in **ENGLAND, FRANCE, GERMANY, SPAIN, AUSTRALIA,** but in the **UNITED STATES,** as well. Its success for the past year in this country is unparalleled, and it will be a long while before the times, records, and distances made on the **RUDGE** will be equalled.

We do not hesitate to say the machine is the lightest, strongest, and most rigid in the world, and the fact that its record is 4 1-5 seconds faster than that of any other bicycle, and that a 22-pound machine is ridden regularly by a man weighing 196 pounds, is proof of this.

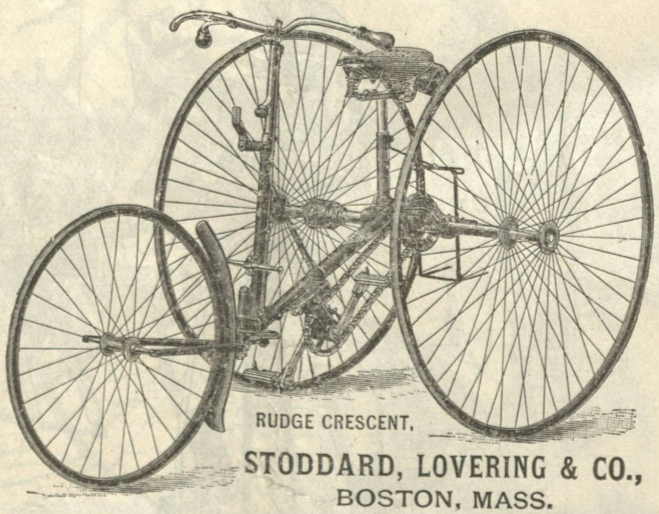
One mile on this celebrated machine has been accomplished in the marvellous time of **2 minutes, 31 2–5 seconds,** at Springfield, Sept. 29, 1885.

We do not keep only a few of these machines to lend noted riders, but carry a full line in stock, and can fill orders at once.



Sellers winning the One-mile Championship of the World, at Aston, Birmingham, England, June 13, 1885, on a 58-inch Rudge Racer. (See page 25.)

THE RUDGE CRESCENT TRICYCLE.



RUDGE CRESCENT.

STODDARD, LOVERING & CO.,
BOSTON, MASS.

(PATENT AUTOMATIC STEERING.)

PRICE, **$175.**

Ball pedals, $7.50 extra. Size of wheel, 40 inches. Width, 37 inches. Hubs, handle bars, cranks, and all bright parts heavily plated; the rest is finished in black enamel. Seat and handle bar is adjustable to suit any height. Fitted with dress guard.

In consequence of the extraordinary demand for the **RUDGE CRESCENT TRICYCLE** in England last year, we were not able to obtain our full supply before the season was practically over; but we have arrangements perfected now for 1887 so as to keep a large stock on hand; therefore, all orders for this machine will be filled without delay.

The peculiar merits of this tricycle were highly appreciated by its riders last year, and knowing the requirements of the American roads and riders, we have gone carefully into their details, and have made several alterations and additions, which we will speak of further on.

The general construction of the wheels, axles, bearings, saddles, seat rods, handle bars, chains, cranks, pedals, etc., is identical with the Rudge Humber Tandem, and for description of these particular parts we refer you to pages 31, 32, 33.

We give in brief these general specifications.

SEE THIS TRICYCLE BEFORE BUYING.

Unequalled for Ladies' use.

SPECIFICATIONS.

TIRES. Seven eighths inch all round.
DRIVING WHEELS. 40 inches in size.
FRONT WHEEL. 26 inches.
BEARINGS. Rudge's adjustable ball bearings to the main axles, crank shafts and front wheel.
BRAKE. Steel band, controlled by a powerful lever on the handle bar.
SPOKES. Direct and but ended.
FELLOES. Crescent steel.
CRANKS. Case-hardened steel, 6-inch throw.
CHAIN. Patent steel, bushed.
SADDLES. Brooks' long-distance triple tension.
SPRING. Double coil, especially designed for comfort.
STEERING. One of the most important parts of a tricycle is the steering, which should allow perfect freedom, combined with ease of manipulation and steadiness.

The Rudge **Crescent** (automatic) is so named because of a special arrangement which has the effect of keeping the machine in a straight line without the steering being touched by the hands.

This we consider will be highly appreciated, for it gives the rider full liberty of his hands when travelling on straight roads, and is especially suitable for country riding. This tricycle is steered by a handle bar, which gives a pull-back action, which we consider most essential in mounting hills, with the least possible amount of exertion, and, in descending hills, forms a comfortable rest for the hands.

The **Rudge Crescent Tricycle,** with its patent automatic steering, large front wheel, and long wheel base, is built with special excellence, comprising all the most valuable of modern improvements. It is so constructed that the weight of the rider is distributed to the greatest advantage between the three wheels; and to meet what is so much sought for, the handles are made adjustable in height, and the saddle is adjustable both vertically and horizontally.

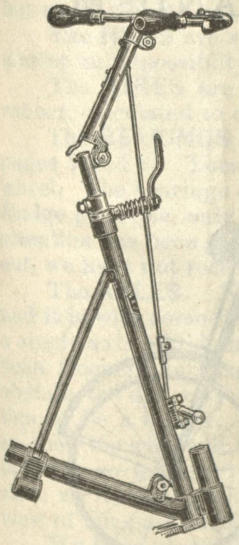
The large size of the steering wheel does away with almost all the vibration.

It is fitted with a horizontal V-shaped fork, the wide end holding the spindle for the wheel, the narrow end being connected with the framework of the machine with a neat tube and socket.

The wheel is moved and steered by patented links on the end of the handle support and the narrow end of the V fork.

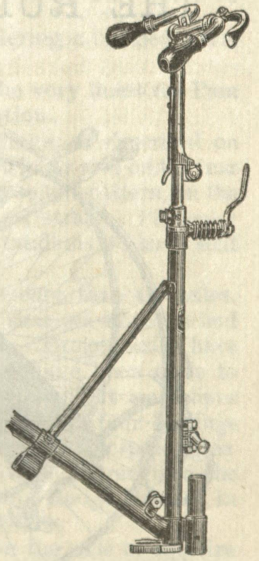
There are no slides or rollers to work loose or rattle, as on other machines of this type, and the absence of vibration is surprising.

We would call your especial attention to one feature of this machine, namely, the handle bar, which is not only adjustable to suit the length of arm of any rider, but it is constructed especially for ladies' use in the following manner: —



The bar is divided into two pieces, firmly attached to each other by a knuckle joint, which allows the upper half of the bar to be pressed forward, so that the machine can be easily mounted from the front, allowing plenty of room for a lady. After mounting the machine it is pulled back to its vertical position, and is firmly secured to the bar, and remains as rigid as if it were one piece. (See cuts.)

We shall have this machine on hand in two weights, one for gentlemen and one for ladies; and in ordering please state the weight of the rider. It is also fitted with dress and mud guards, etc.



The **RUDGE CRESCENT** is a double driver and on rough roads will be found a great luxury. Its construction is the result of careful study, and is very simple.

We recommend it with great confidence, and feel sure that it will become a very popular steed during the coming season.

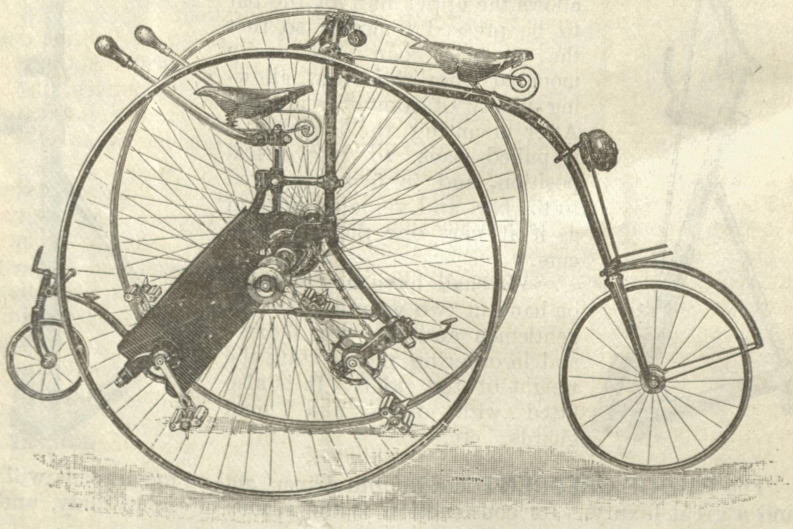
THE "ROYAL CRESCENT."

(*From The Cyclist, July* 28, 1886.)

Messrs. Rudge & Co. have just introduced a new pattern of the "Royal Crescent," especially designed for the use of ladies. It is slightly smaller throughout than the general pattern; the steering pillar in front is very ingeniously arranged by means of a hinge and spring, so that it can be instantly pushed forward, and when then turned round, leaves the front practically open for the ingress or egress of the fair occupant to the seat. This should be an additional attraction to this undoubtedly easy-running machine.

THE RUDGE HUMBER TANDEM.

(CONVERTIBLE.)



PRICE, **$250,** WITH BALL PEDALS.

Size of wheels, 40 inches.
Width, 40 inches.
Hubs, handle bars, cranks, and bright parts heavily plated, the rest finished in black enamel.
The front seat and handle bar are adjustable to suit any height.

The success of the **RUDGE HUMBER TANDEM** last year, which was introduced in America to meet the great want for a double tricycle combining speed and good hill-mounting properties, with minimum of labor, has so far exceeded our expectations, that we present it again to our patrons this year, with an increased confidence that our efforts have been appreciated.

As a single machine, this is undoubtedly one of the fastest and lightest on the market, and in converting it to a double only twenty pounds are added to its weight. Riders can easily understand the extra speed that is attained when they find that two riders only add so slight an addition to the weight. No single tricyclist will be able to maintain a pace attained by two moderate riders on this Tandem, and its splendid steering in the single form is really improved when converted into a tandem for two riders. It is suitable for a lady and gentleman or two gentlemen.

NOTE.—Always give length of leg for rear rider when ordering.

SPECIFICATIONS.

The **WHEELS** are forty inches in height, fitted with fifty very strong but-ended direct spokes.

The **HUBS** are very wide, made of solid steel, rendering a buckled wheel almost an impossibilty.

The **TIRES** are full seven eighths inch, made of the very finest red Para rubber, calculated to obviate to a great extent any vibration.

The **BEARINGS** are Rudge's unequalled ball bearings, as described on pages 5 and 6. These bearings are fitted to the crank shafts and on the rear wheel. The bearings on the axle are of a specially constructed pattern, on the Rudge principle, only larger in proportion to the wear and strain. Particular attention has been given to this point, and of the many tandems we have sent out, we have not received a single complaint.

The **AXLES.** No part of a tricycle requires more care than the axles, and it is with some degree of satisfaction, when we say that we have not had a single axle of this machine break during the last year. Broken axles have been frequent in machines of other makes, and efforts have been made to obviate the difficulty by using four bearings instead of two, but we believe this to be a fallacy. We think that it is impossible to adjust four bearings so that the axle will be perfectly true, and each one wear equal, especially as they are so far apart; and while to a certain extent it may strengthen the axle, we do not consider that this is at all necessary in the Rudge Humber, in view of our past success on this essential point.

We have placed our bearings at a sufficient width on the axle to equalize the weight and relieve all pressure or strain on any one individual point. We are confident that four bearings will not run as easy as two, and we consider, should by any means the axle become bent, with four bearings, it is much harder to repair it than with only two.

DRESS GUARDS are fitted to the front part of this machine, which entirely prevents any oil or dust from soiling a lady's dress.

HANDLE BARS. The front handle bar is hollow, adjustable, and detachable, which can be adjusted to suit the length of arm or leg or any rider.

BALANCE. It is desirable in this type of tricycle, to divide the weight of the riders, so that it will be equal on both sides of the main axle, and in order to effect this, the rear part cannot be made perfectly adjustable, and, at the same time, with the required strength. The reason that this machine has become such a favorite in England during the last four years lies simply in the fact that it runs so easily, because of the position of the riders. The rear seat is not adjustable for a person riding more than from a 50-inch to a 52-inch, but in order to remedy this, we carry machines of various sizes in stock.

The **SPRINGS.** This machine has a specially prepared spring, fitted with a coil at both ends for the front rider, and it is especially desirable for ladies' use, as it obviates all jar and vibration.

The rear spring is suitable only for gentlemen, and can be moved backwards or forward to suit the weight of the rider.

The **HANDLES** are of large sized horn.

TUBING. Any one who has had experience in tricycles will readily see that this is one of the most important parts of the machine, and we have

these machines made for us of tubing sufficiently strong to stand the strain of the American roads. It is made of the very best cold-drawn weldless steel, and varies from thirteen to fifteen gauge.

The **BRAKE**. As a means of precaution and to insure perfect safety, we have fitted these machines with a band brake controlled by two very powerful levers, one on each side of the bar.

The **STEERING**. The rider sitting behind has entire control of the steering, thus making the seat in front delightful, especially when used by a lady (which is often the case), and requiring only a minimum of the labor and attention necessary in ordinary tricycle riding.

The **LUGGAGE CARRIER**. Each machine is fitted with a luggage carrier, suitable for carrying a good-sized parcel, which never interferes with either rider.

For comfort, we have the most convincing proofs that it has attained its object. Ladies are loud in its praise on account of the small amount of labor required to propel the machine at a good pace, up steep hills even, and for the comfortable position they are enabled to take; while its peculiar construction entirely obviates the much-complained-of displacement of dress, even while pedalling at a fast pace.

SUMMARY OF THE POINTS IN THE RUDGE HUMBER TANDEM FOR 1887.

In England probably no machine has acquired such a prestige, chiefly owing to the practical and mechanical knowledge of its inventors, and we have some reason to believe that it will be fully as popular in this country as it is in that.

The Rudge Humber Tandem for 1887 will have the following improvements, to which we would call your special attention, and which are a peculiar feature of this machine: —

1st. Instead of having one single brake, a powerful double-lever brake is attached to it, which is considered a great advantage, as it does not throw the responsibility entirely upon one lever.

2d. The semicircular handle bar on the front part of the machine can be adjusted so as to make it practicable for either a lady or gentleman with short or long arms.

3d. Extending from the drop tube holding the forward pedals and rear tube is a detachable brace, which effectually prevents any springing together, or loosening up of the chains. The front chain is entirely covered by a guard which protects a lady's dress from dust or dirt.

4th. Rudge's ball bearings to the main axle, rear wheel, and crank shafts.

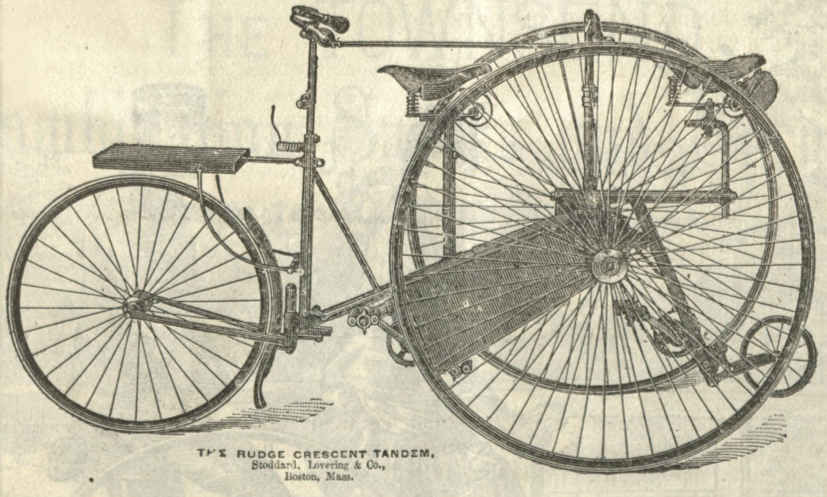
5th. Luggage carrier on backbone.

SADDLES. Brooks' Long Distance Triple Tension.

NOTE. — In ordering always give length of leg for the rear rider.

THE RUDGE CRESCENT TANDEM.

(PATENT AUTOMATIC STEERING.)



THE RUDGE CRESCENT TANDEM.
Stoddard, Lovering & Co.,
Boston, Mass.

PRICE, **$250,** WITH BALL PEDALS.

Hubs, handle bars, cranks, and all bright parts heavily plated; the rest is finished in black enamel. Seat and handle bars are adjustable to suit any height.

We present the Rudge Crescent Tandem as one of our specialties for 1887.

It does not differ in detail from the Crescent Tricycle, with the exception that an addition is made to the rear which enables it to be ridden by two riders. The lady occupies the front seat and the gentleman the back. Both are perfectly adjustable and detachable to suit the length of any leg or arm.

For the detailed specifications of this machine, please see page 30.

We would call your especial attention to one point contained in this tricycle, which will be appreciated by every rider, viz: —

THE STEERING. We have constructed this machine in such a manner that only the front rider can steer, or both if desired.

The two handle bars are connected by a steel rod attached to the end of each bar by a swivel joint; consequently both riders have control over the machine.

We do not think that any tandem of this type should be without double steering, for it is often a difficult matter to handle it properly, especially when a lady is on the front seat.

It is a very easy matter to detach the bar if single steering is desired.

We also keep this machine in stock suitable for two ladies' use if desired.

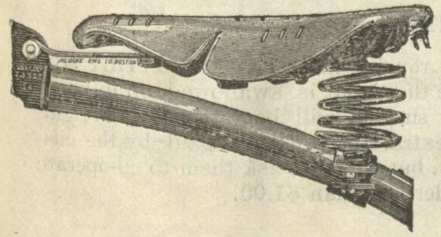
RUDGE CRESCENT TANDEM. (See page 35.)

A Cyclist's Seat without chafing, irritation, or perineal pressure, and proved to be the most comfortable, non-fatiguing Saddle for long-distance riders ever produced. A trial only necessary to prove this.

THE ONLY UNIVERSAL WEIGHT CARRIER.

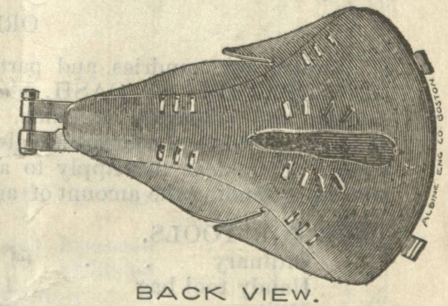
THE TOWNSEND
Combination Saddle and Spring.

FITTED TO ALL RUDGE BICYCLES.



SIDE VIEW.

Price - $6.00 Each.



BACK VIEW.

THE Body or Frame of this Saddle is made out of a specially manufactured round Steel, all in one piece, the length of which, before shaped, is 12 feet. This Body or Frame is covered with a carefully blocked seat of very superior leather, laced underneath, and forming altogether the most perfectly ventilated tension Saddle ever introduced to Cyclists. After many severe private trials, of several months' duration, by all classes of riders on all makes of machines, it has lately been introduced to the general public and pronounced to be, without doubt, THE BEST SADDLE AND SPRING ever sat upon, and that without any unpleasant shake or vibration.

Most of the Agents who have sold these Saddles and Springs say all their customers are delighted with them, and that is proved by the many orders coming in from every district where it has been introduced.

Many Medical Men say it is THE ONLY SADDLE *suitable for some people to ride upon, causing no perineal pressure or irritation, and can be ridden long distances without fatigue or soreness.*

PRICE - - - - - - - - $6.00.

SPECIAL QUOTATIONS FOR QUANTITIES, AND TO THE TRADE.

SOLE U. S. AGENTS,

STODDARD, LOVERING & CO.

152 to 158 CONGRESS STREET, BOSTON, MASS.

DEPARTMENT OF SUNDRIES.

Having obtained the sole control of the principal English manufacturers of sundries, we invite your inspection to the following list of accessories which we are prepared to place on the market in large quantities.

For SADDLE BAGS, etc., we have the sole United States agency of *Messrs. Lamplugh & Brown*, and *Messrs. J. B. Brooks & Co., of Birmingham, Eng.*, whose goods stand unrivalled for quality, neatness, and comfort.

For LAMPS we are sole agents for the United States, of *Messrs. Jos. Lucas & Son, of Birmingham*, whose celebrated lamps are known all over the world.

For *LIQUID ENAMEL* we have the sole control of that of Messrs. *Ardill & Co., of Leeds, Eng.* This enamel is too well known to require a description; we may, however, say that it is the only enamel on the market that has given perfect satisfaction.

For CEMENT, we invite your attention to Loudon's celebrated cement, which is used by all the largest manufacturers of bicycles and tricycles, both in England and America.

ORDERING.

Orders for sundries and parts for repairs MUST POSITIVELY BE ACCOMPANIED BY CASH, otherwise the profit is swallowed up in book-keeping, and collecting accounts. Any surplus will be returned. Freight, Express, or Postage charges are always extra, and must be paid by the customer. This does not apply to agents, but we must ask them to co-operate with us in sending the amount of any order less than $1.00.

BAGS FOR TOOLS.

Ordinary	$1 00	Don 3-fold	$2 25
Handy tool bag	2 00	Cyclist's wallet	2 00
Military	2 25	Speedwell	1 75
Don 2-fold	2 00		

King's Own, complete with — 1, dram flask; 2, lock and chain; 3, oiler; 4, cutting pliers; 5, copper wire . . 3 50

BAGS FOR LUGGAGE.

No. 1 bicycle, M. I. P. Serviceable, with patent back clip, 10x7x3	5 00
No. 2 bicycle, M. I. P. Serviceable, with registered hold fast, 10x7x3	6 00
No. 3 bicycle, M. I. P. Serviceable, no clip, small size	1 75
" 4 " " " " "	2 25
" 3 tricycle, " " 12 inch	6 00
" 4 " " " 14 "	7 00
" 5 " " " 16 " 3 pockets	10 00
" 6 " " " 16 "	12 00
Stand	1 75

The above are made of the best brown tan or water-proof canvas.

BELLS.

Hill & Tolman's Automatic	3 00	Perfection	2 50
Harrison's Double Chime	2 00	Hill & Tolman's Stop	1 25

BICYCLE STANDS. Wicksteed Patent 2 00

CLEANING CLOTHS. Silk noils, the very best thing for nickel 25

CYCLOMETERS: Butcher, $10.00; Spalding, $5.00; McDonnell, 4 00

CYCLOMETERS.

Down's spoke	$5 00
" hub	10 00

In ordering, state size and make of machine.

CEMENT. Loudon's World Renowned for fastening tires.

Per cake, ¼ pound, 35c.; ½ pound, 65c.; 1 pound, $1.25.

For mending cuts, per box, 25c.

This cement is used by all the important manufactures in England and America, and is considered unequalled.

ENAMEL. Ardill's Liquid, per bottle, with brush, each . . 75

HANDLES.

Rubber, Nash's patent, to absorb vibration of the handle bar, per pair	2 00

In ordering, state name of machine.

Spade, ordinary nickelled	4 00
" ordinary plain	3 50
" adjustable nickelled	5 00
" adjustable	5 50

LAMPS. Joseph Lucas & Sons'.

Bicycle, No. 1, King of the Road, hub, japanned	5 00
" " 1, " " " " nickelled	6 50
" " 2, " " " metal bearings, japanned,	6 00
" " 2, " " " " " nickelled,	7 50
" " 3, " " " head, japanned	4 25
" " 3, " " " " nickelled	6 00
" " 4, The Captain japanned only	2 50
Tricycle, No. 1, King of the Road, hub, japanned	6 00
" " 1, " " " " nickelled	7 50
" " 3, " " " head, japanned	4 25
" " 3, " " " " nickelled	6 00
" " 4, " " " for C. R. T., with clip	4 50
Bicycle, No. 5, " " " head, japanned	5 25
" " 6, " " " " japanned	6 00
Clip only	1 25

LUGGAGE CARRIERS.

Lamson's ordinary,	$0 75	Lamson's for book	1 00

LAMP WICKS, per foot 20

OIL CANS.

King's Own, with valve	60	Paradox, gilt	30
Ordinary	25	" nickelled	25

PEDALS.

Rudge's ball pedals, nickelled, rubber or rat-trap	11 00
Æolus ball pedals, nickelled	11 00
Rudge racing ball pedals	11 00
Ordinary parallel, nickelled, rubber or rat-trap	6 00

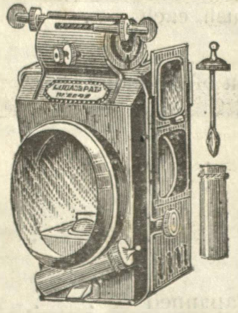
PADLOCKS.

With chain and key, brass	75
" " " nickelled	1 00
Yale, with chain and key, brass	1 25

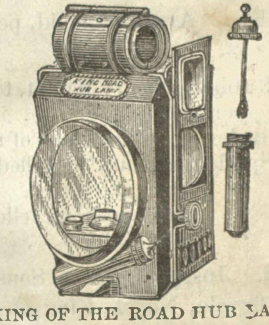
KING OF THE ROAD LAMPS.

Manufactured by J. LUCAS & SONS, Birmingham, Eng.

These Lamps are unquestionably the best in the market. Made of the best tin, every part riveted, (instead of soldered,) they are a thorough piece of workmanship. Being of large size, they throw a very powerful light, but from their peculiar construction, being divided throughout their entire length, they can be placed within a many spoked wheel They are provided with red side lights and red danger light at the back. The 1885 pattern here represented is far superior to the old style. The improvements are: (1) Adjustable axle bearings. (2) Wind-up burner, by which the light may be regulated from the outside, thus avoiding the annoyance of opening the lamp. (3) Improved arrangement of powerful detached reflector which prevents its getting smoked. (4) Slide at side for lighting. (5) Patent clip on front containing wick igniter, etc.

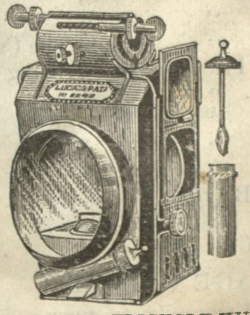


KING OF THE ROAD HUB LAMP.
Price, Japanned, $5.00; Nickeled, $6.50.

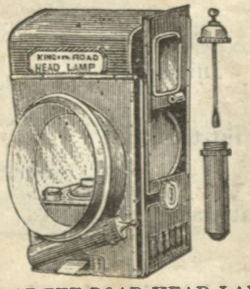


KING OF THE ROAD HUB LAMP.
With Patent Bearings and all the latest improvements. No check screws required, and nickeled hubs are not spoiled by having the nickel rubbed off. Price, Japanned, $6.00; Nickeled, $7 5o.

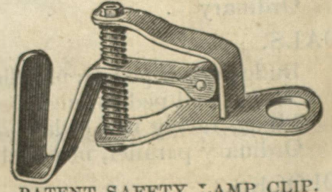
THE CAPTAIN. Price, Japanned, $2.50.



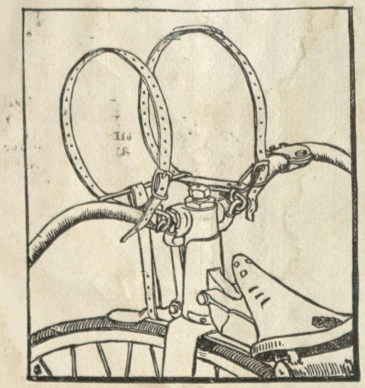
KING OF THE ROAD TRICYCLE HUB LAMP.
For axles with lubricator in center.
Price, Japanned, $6.00; Nickeled, $7 50.



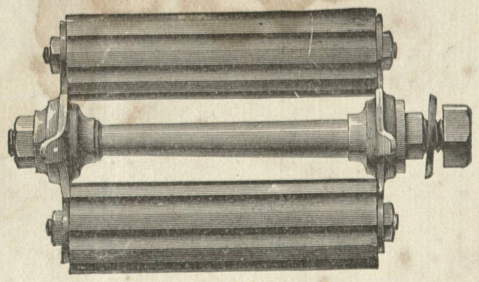
KING OF THE ROAD HEAD LAMP.
Price, Japanned, $1.25; Nickeled, $6.00.

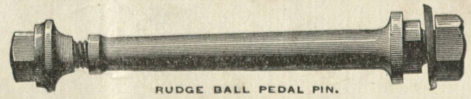


PATENT SAFETY LAMP CLIP.
Price, $2.50.

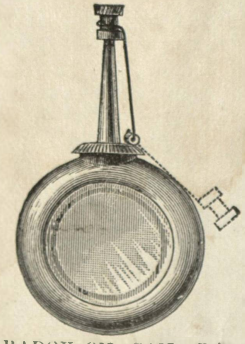


LAMSON'S LUGGAGE CARRIER.
Price, Detachable, $1.00.
" Ordinary, .75.

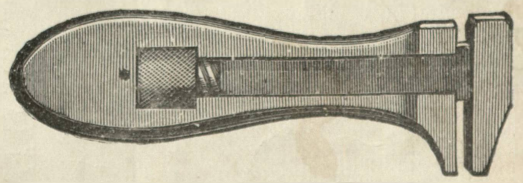




Price, Nickeled, per pair, $11.00. Pins only, each, $1.50.

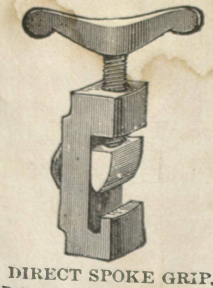


PARADOX OIL CAN. Price, 25c.

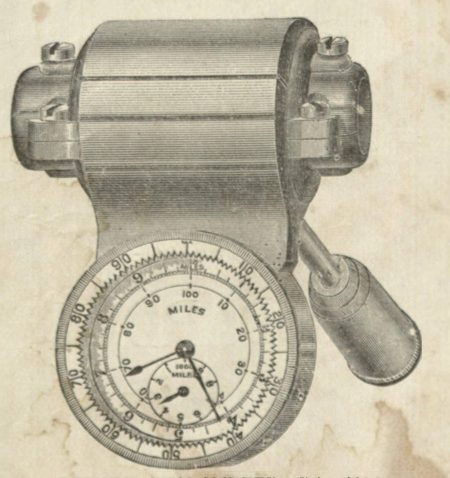


BILLINGS & SPENCER WRENCH.
Price, Blued, 75c.; Blued, larger size, $1.00; Nickeled, $1.00.

HARWOOD'S
SAFETY BICYCLE STEP
Adiustable. Price, $1.25.



DIRECT SPOKE GRIP.
Price, 50c.; Nickeled, 75c.



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